

We claim:

- 1 1. A method for evaluating a node of a communication network, the method  
2 comprising the step of:
  - 3 calculating capacity of the node based on a traffic model comprising a  
4 combination of one or more relationships between one or more application types and  
5 rates of information being conveyed through the node.
- 1 2. The method of claim 1 where the step of calculating a capacity of the node comprises  
2 generating relationships for node capacities of different application types at  
3 different information rates; and  
4 constructing the traffic model from a combination of the generated relationships.  
5
- 1 3. The method of claim 1 where processor occupancy of at least one of processor at the  
2 node is calculated as the capacity of the node.
- 1 4. The method of claim 1 where the relationships are mathematical equations describing  
2 relationships between processor occupancy of at least one processor at the node and  
3 application types at certain information rates.
- 1 5. The method of claim 1 where the traffic model is a linear combination of various  
2 mathematical equations describing relationships between processor occupancy of at least  
3 one processor at the node and application types at certain information rates.
- 1 6. The method of claim 1 where the communication network is a wireless  
2 communication network.
- 1 7. The method of claim 6 where the capacity is calculated by calculating a processor  
2 occupancy of at least one processor at the node from a traffic model comprising a linear

3 combination of various mathematical equations describing particular relationships  
4 between an information rate of a particular application type and a resulting processor  
5 occupancy.

1 8. The method of claim 7 where the at least one processor processes subscriber  
2 information.

1 9. The method of claim 6 where the capacity is calculated by calculating processor  
2 occupancy for an uplink and a downlink of at least one processor at the node.